

An
Inaugural Thesis

on the
Scale Cervinum

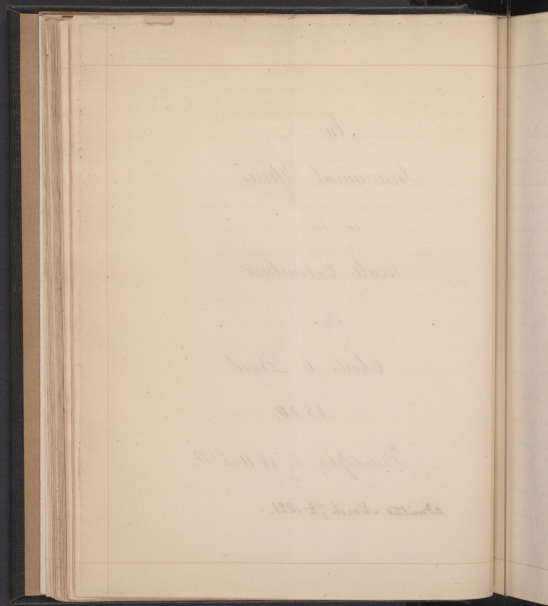
By

Charles C. Byrd

1820.

Philadelphia No. 36 Arch St.

admitted March 7th 1821. -



An
Inaugural Thesis

On The
Scale Cornutum

By

Charles C. Byrd

Philadelphia No 56 Arch St.

1820.

It is
and cer-
ness, with
absolutely
rise of the
advance
the allow
should be
favorable
know that
your sigat
is called i
and in the
Formid re
The ar
than the c
natural h
point of o

1

On The
Lecale Cornutum.

It is an observation, which has frequently been made, and certainly it is a correct one, that a thorough acquaintance, with the different articles of the Materia Medica, is absolutely necessary, to qualify the Physician for the exercise of the important duties of his profession, and, for the advancement of a profession, which has for its object, the alleviation, and cure, of human diseases, no effort should be spared, no means left untried, by which this desirable end can be attained. With these views I do not know that my feeble powers can be better directed, than in investigating the properties of the Lecale Cornutum, or as it is called in the vernacular language of France, the Ergot, and in that of England and this country, Spurred rye; Horned rye &c.

The article deserves more the attention of Medical men, than the one before us. It is highly interesting as regards its natural history, eminently important in a practical point of view, and certainly time is not mispent, in searching

of its d
has three
which b
ence of
dication,
less wh
is very s
account of i
object at

The Co
of the gene
and bunte
planation
the subject
-tion, and
give the ide
that it arose
opinion I h
such success
it. Several

out its deleterious qualities. I shall, therefore, treat of it under these three heads, and though my time, which is, at present, occupied by all those diversified studies embraced in the science of Medicine, will not allow me to enter fully into a discussion, of the merits, and demerits, of the various hypotheses which have been assumed, to explain the origin of this very singular production; still, I shall give such an account of it, as will accord with the opinions held on the subject at the present day.

The Ergot is now supposed to arise from a mushroom of the genus sclerotium, which is of a parasitical nature, and scientifically called *Clavus*. Before this plausible explanation was put forth, many conjectures were held on the subject. It was said at one time to arise from fermentation, and the simple experiments of the Abbé Fontana gave the idea, and certainly with some degree of reason, that it arose from contagion. But M. Rodandelle, whose opinion I have cited above, has studied the subject with much success, and taught a more correct theory with regard to it. Several of the granivorous plants are liable to this

...erance, b
...d by it
...d every
...the husk
...itself, of a
...firm texture
...greater qu
...ble to it
...country
...a rising w
...tain the
...of destinat
...he devised
...fills to the
...to the inter
...and is p
...the spot des
The lime
...gelly into
...alogical

disease, but, more particularly the *rye*, which has been destroyed by it in France, in great quantities. It forms an elongated excrescence, which occupies the place of the grain within the husk of the *rye*; rather larger generally than the seed itself, of a black colour externally, and white within, of a firm texture and disagreeable taste. It is found to occur in greater quantities in wet seasons and a new soil is favourable to its productions; it abounds more in some districts of country than others and it delights in a heavy rich soil, agreeing with the *sclerotium* in all these particulars. To explain the manner in which the parasite reaches its place of destination, within the glume of the *rye*, M. De Candolle has devised a very ingenious theory. According to him the seed falls to the ground, mingles with the soil, and is conducted to the interior of the cornplant, by the water that nourishes it, and is finally transmitted by the circulating fluids to the spot destined for its development.

The limits of these pages will not permit me to enter fully into the history of *sclerotium*s, and by a course of analogical reasoning to prove the justness of this location.

of the
a question
in every
exactly as
amongst
With this
of the Nas
he second
of the Eg
To relieve
presence to
long been
genius of
effects at a
especially c
that vicin
and instro
illness, the
manifest a
he otherw

of the Ergot. Nor indeed, would it be useful to urge further, a question so well settled; suffice it, therefore, to say, that in every circumstance of its origin and development, it so exactly agrees with scleroticisms, as to denote a situation amongst them.

With these remarks I shall conclude what I have to say of the Natural history of the Uterine Cornutum and proceed to the second division of my subject, namely the application of the Ergot to the Practice of Midwifery.

To relieve the sufferings of the parturient female and to preserve both the life of herself and infant, a remedy had long been desiderated, and to furnish one; the inventive genius of man has been employed for ages past. But, all efforts at discovering a medicine which should operate specifically on the uterus, and promote the contractions of that viscus, proving abortive, recourse was had to manual and instrumental aid. These modes however of effecting delivery, though they have been found to be of the most manifest advantages by averting in numerous instances, the otherwise sure destruction of Mother or child, and

person
and the
se or far
in the ex
practice
affection
superior
to to aw
undoubtedly
and Do
dividual
weekly
utility of
increasing
by them
abandon
share of p
proportion
Others, I
are perfectly

v. 11. some th
in the whole

frequently of both, are at all times alarming to the feelings, and shocking to the delicacy of the sensitive female, and never fail to give the idea, that her situation is terrible in the extreme. The Ergot, which has been introduced into practice within the last ten or twelve years, is found so efficacious, in promoting labour, as in many cases, to supersede the necessity of turning, and in most instances, to do away the use of the forceps. America claims with undoubted right the credit of this important discovery, and Doctor Barnes of the State of New York is the individual to whom the profession is indebted for this weighty acquisition. Experience has amply proved the utility of this article, and indeed the power which it has in inducing the strong contractions of the Uterus is sufficiently demonstrated by the rapidity with which it causes abortion in the inferior animals when given to them in a state of pregnancy, and if taken by a female in an unimpregnated state, uneasiness is felt in the region of the Uterus, I shall not however dwell on these facts which are perfectly established. It is obvious, that an article so

* It seems that the Ergot had been much earlier used in France, in particular practice by the same author, but with little effect.

powerful
cutions,
relies by
duration
in short
times to
the. As to
or should
the danger
be too care
sufficient
ation is
having it
possible to
the operation
for the
on such ca
from since
of the ultra
one reliable

6
powerful in its action as the Ergot should be used with much caution, and must require for its administration certain rules by which we should be governed. From the force and duration of the contraction brought on by it, it is highly important to attend to the state of the soft parts; and previous to exhibiting the medicine we should ascertain that the Os tinea is sufficiently dilated and yielding; otherwise we should subject the mother to great pain, and incur the danger of rupturing the Uterus; an evil that cannot be too carefully avoided. It is also proper, if the labour be sufficiently advanced; to satisfy ourselves that the presentation is natural; for should it be such a one as to require turning, it would be an arduous task if not wholly impossible to render successful manual assistance during the operation of the Ergot, and mischief might arise from the violence of the contraction. It is now time to point out such cases as demand the use of the medicine; whenever, from syncope or any other cause the contractile powers of the uterus are destroyed, or suspended after having been once established, when the soft passage is yielding, the

as time
had for
the result
if from
and not
state, the
and the
surprising
according
brotherhood
exhausted
child, from
casualty
and the
be danger
such a great
and who
medicine
which relief
of the M.

7
is *Stimula dilata*d, the membranes ruptured, and the child's head presenting fairly, it may be given with safety, and the result will fulfil our most sanguine expectations; or, if from the commencement, the pains be feeble, for a part, and not efficacious, and the soft parts are in the proper state, the same happy result will follow its administration, and the practitioner will have the pleasure of seeing the sufferings of his patient much abridged, and perhaps of avoiding the use of the forceps, and avoiding many other troublesome and dangerous consequences, as hemorrhage, exhaustion or death of the mother, and destruction of the child, from compression of the umbilical cord, or some other casualty. When the soft parts, instead of being in the state I have described are rigid and unyielding, and delay be dangerous, blood should be drawn from the arm in such a quantity as to produce relaxation of the soft fibres, and when this end is attained, to proceed with the medicine. Here then in the lancet we have a remedy which relaxes the circular fibres of the neck and mouth of the *Altrius*, whilst in the *Ergot* we possess another;

which
pastors
without
and grant
permanence
of the se
which so
and con
sailing
I am led
self, by
-in) has
The dose
-in) two
may be to
intended
but this,
in three c
don requir
This, like

which promotes the vigorous contractions of its body and
 furrows. We can view this happy arrangement of things,
 without being struck with admiration of the wisdom,
 and gratitude for the kindness of Providence, in thus
 placing in our hands means so effectual, for the relief
 of the sufferings and dangers attendant on parturition,
 which so strongly excite our sympathies, and call for our
 aid. Considering however the painful consequences re-
 sulting from a too hasty administration of the medicine,
 I am led to urge, that the Accoucheur should satisfy him-
 self, by a careful examination of the parts, that the bleed-
 ing has produced the desired effect, previous to its use.

The dose of the Ergot, and the mode of giving it are sim-
 ple; twenty grains of it powdered and dissolved in water,
 may be taken at the first dose, and if this has not the
 intended effect, it should be repeated in twenty minutes;
 but this, I believe, is rarely necessary, I have seen it given
 in three cases, and in neither of them was the second
 dose required.

Thus, like all other medicines, not some difficulties in

receiving
a most perfect
that it for
would at
slightest
has to feel
joint in
having an
on, at pre
from a wo
ed by all
It's said
very natu
rarely or s
Crest; and
strain a
and with
the and i
contractio
the whole

securing the confidence of Medical men; and at one time a most formidable objection was alleged against it, namely, that it frequently proved fatal to the child, by which it would at once forfeit all claim to attention, was there the slightest foundation, for such an allegation, but experience has so fully contradicted the charge that every practitioner joins in decrying the notion, and exculpating it from having any such effect, and, I believe, it is generally relied on, at present, in difficult and tedious labours, occurring from a want of action in the Uterus, and its utility allowed by all who have given it a fair trial.

It is said, and indeed, it might be expected, from the very nature of the Medicine, that Uterine hemorrhage, rarely or never happens after a delivery effected by the Ergot; and it has been well shewn of as a remedy to restrain alarming floodings. I have never seen the Ergot used with this view; but our knowledge of its *modus operandi* corroborates the opinion, for, when the tonic contractions of the Uterus are wanting, after a part or the whole of the placenta has been detached from that

any, as
-gances;
the first
here con-
-ious be-
Mirine
not only
their un-
Miss stop
I can

It is no
should
of this a
itself for
beated a
some one

organ, an hemorrhage is the certain and necessary consequence, and here our remedy surely is the one to fulfil the first, and grand indication, which is to restore the tonic contractions of the Uterus, and by the forcible contractions brought on from the exhibition of the Ergot, the Uterine fibres press on all sides upon the magnified vessels, not only closing their open mouths, but diminishing their enlarged calibars throughout their whole extent, and thus stops the bleeding which might otherwise prove fatal.

I come now to the consideration of the
Agency of the Ergot
in producing
The

Dry Gangrene.

It is not my intention, nor indeed, could it be expected that I should enter into a full detail of the nature and treatment of this very interesting and terrible disease; for it would of itself form a work of too great length and intricacy to be treated of here in all its parts, I shall, therefore, leave it to some one more capable than myself of doing justice to the

subject
the
I have
do not
least, an
papers
selected
indeed,
that it
the
Gargner
make
for some
grain
co. etc.
of this
article
now are
his vi
to over

subject. As it has been said to owe ^{its} origin in many cases to the Ergot, I shall consider it in that point of view; and as I have made it an object of experimental investigation, I do not despair of coming fairly at the truth, as far, at least, as analogy will go; and I think, whoever reads this paper, will join with me in believing the Ergot to be possessed of properties highly deleterious to animal life; and indeed, I trust, it will, no longer, be left a matter of doubt, that it is capable of producing and has often produced, that much to be dreaded, and horrible disease the dry gangrene; for it is, at all times, important to discover, and make ^{known}, the poisonous qualities of any article, but in the present instance, I view it as doubly important; for the grain of all others most subject to that morbid affection constituting the Ergot, is with many of the inhabitants of this and most other countries extensively used as an article of food, and I am sorry to say, that our crops of rye are found every year to contain more, and more, of this vitiated grain, which, unless, some means be taken, to avert the calamity, may be productive, of the most

minutes
The
wa know
writings
also resp
the subject
in 1876
when it
ealing) rep
had and o
over man
persons d
the r sta
as by as
This dis
remote p
by with
becomes a
requires s
found to

melancholy consequences.

The Dry Gangrene, though rarely met with in this country, was known many years ago in France: to the periodical writings of which Country we are indebted for much information respecting the disease: The first communication on the subject given to the world, was made by M. Toderd in 1676 in a letter inserted into the *Journal Des Savans*, by whom it was stated even at that early period, to arise from eating rye bread, tainted with the Ergot; subsequently M. Saviard Surgeon to the Hotel Dieu of Orleans where there were many patients with Dry Gangrene, remarks, that persons are attacked with it who live on rye bread, he further states that the extremities of those who have it are as dry as touch wood and as emaciated as Egyptian mummies.

This disease commences in the extremities or parts most remote from the source of the circulation; attended generally with but little fever inflammation or pain, the limb becomes dead, and is either separated by the absorbents, or requires to be removed by the knife. It has always been found to prevail most in those seasons favourable to the

produced
your the
convinced
had in
since b
proved
were at
human
and de
I'd by
a h
let see
sale, a
history
use of
In
grown
tort is
in dispo
judicial

production of the Ergot, and to be confined to those who lived on rye: these circumstances so strong of themselves, sufficed to convince all who witnessed them, that this species of Gangrene had its origin in the use of rye containing the Ergot, have since been corroborated by the experiments of Mr Tessier, which proved that fowls fed, for any length of time, with the article, were attacked with a disease similar to the dry Gangrene of human beings; still however, the question is not settled, and doubts are held on the subject even at the present day. Led by an inclination to satisfy myself with regard to this interesting question, I instituted experiments during the last summer, on ducks, which though made on a small scale, afforded the most conclusive results. I shall give a history of them from the time of administering the first dose of Ergot until the death of the fowls.

On the 28th of June 1820, having procured two well grown healthy ducks, I commenced by mixing the Ergot in small quantities in their food, but was unable to disguise it in such a way as to get them to eat it; finding this to be the case, I determined to force it upon

one of
for my
to one of
grains
soon per
languid,
limpid,
the nose
affected,
were ble
dud, I
labourin
had nee
On depre
alled, I
high w
On the
course w
heroduce
t a top

14

one of them in such a quantity as I thought sufficient for my object, I began, therefore, on the 7th of July, and gave to one of them 3i of the Ergot per diem in the dose of 20 grains morning, noon and evening: with this course, I soon perceived an evident change in the fowl, it became languid, lost its appetit, and there was a discharge of limpid fluid from the eyes, nose and mouth, that from the nose soon became bloody and offensive, the beak became affected, it was dark and shrivelled, the feet and legs were black and glossy. On the 18th instant this duck died, I rather believe from some accident, for although labouring under the effects of the Ergot, mortification had not proceeded far enough to produce death alone. On dissection I found the stomach (or as it is commonly called the gizzard) red as if inflamed, the muscles of the thigh were hard and dry.

On the 19th of July I commenced a precisely similar course with the remaining duck, but why the disease produced in this case differed from the other, I am quite at a loss to decide. But the disease here produced, might

with no
his de
with a
much
froid, s
in a ju
the claws
the fat a
it hid w
form the
ble to the
producing
an conce
Hofau, s
which cer
result of
also by

with much propriety be called wet gangrene, the beak of this duck instead of being dry like the former, was covered with a vesicle, the investing membrane of the bill being much elevated and containing below it a dark coloured fluid, the skin of the legs was covered with moisture, and in a few days more, worms and maggots were generated. The claws now began to fall out, the integuments covering the feet and legs sloughed away, and on the 1st of August it died with its whole body in a state of putrefaction.

From the results of the experiments above stated, I am led to the certain conclusion that the Ergot is capable of producing the Dry Gangrene; but, at the same time, I am convinced, and indeed the fact is mentioned by M. Boscaw, that the gangrene is not always of the dry kind, which certainly is proved by my last experiment, the result of which was witnessed by several students, and also by Doctor L. Jackson of this City.

СВЯТА

ГЕОРГИЙ ВИКТОР

ГЕОРГИЙ

АЛЕКСАНДР

АЛЕКСАНДР ПЕТРОВИЧ

ПЕТРОВИЧ

Всего страниц 100

1812

Всего страниц 100

CTERBA

CONSERVATEUR

1871